

5 An annular die designed to produce polymer foam using only one or more ambient gasses as a blowing agent includes an exiting channel with an exit having a cross-sectional area between about two and about ten times that of a smallest point within the exit channel. The section of the die from the smallest point to the exit is thermally isolated from the rest of the die, and the temperature thereof is independently controlled. In addition, the interior surface of the exit channel is coated with a friction-reducing coating.